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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,766	12/30/2003	Kang-Gyu Lee	678-1291 (P11217)	8719

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UNIONDALE, NY 11553

EXAMINER

PHU, PHUONG M

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/748,766

Applicant(s)

LEE, KANG-GYU

Examiner

Phuong Phu

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form P.T.O.-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-Claim 1 recites the limitation “a PDU to which a TSN (Transmission Sequence Number) is allocated from a transmitter” on lines 2 and 3; and the limitation “a TSN of the PDU at an upper edge of the receiver window” on line 7. It is unclear in the claim whether the “TSN”, appeared in the latter limitation, refers to the “TSN” of the “PDU” appeared in the former limitation. If it does, “a TSN” on line 7 is suggested to be changed to --the TSN--; or otherwise if it does not, “a TSN” on line 7 is suggested to be changed to --another TSN-- and “the TSN” on lines 8-9 to --the other TSN--.

-Claim 1 recites the limitation “when a sum of *a TSN of the PDU at an upper edge of the receiver window* and a value of the set receiver window size is larger than a value of a total TSN size where *the TSN of the PDU from the transmitter is outside the receiver window*” on lines 7-9. The statement “a TSN of the PDU at an upper edge of the receiver window” is conflicted with the statement “where the TSN of the PDU from the transmitter is outside the receiver window” because in the formal statement, as indicated, the “TSN” of the “PDU” is at an upper edge of the receiver window while in the latter statement, as indicated, the “TSN” of the “PDU” is outside the receiver window.

-Claim 1 recites the limitation “receiving a corresponding PDU” on lines 10-11. It is unclear whether the “corresponding PDU” refers to the “PDU” on line 2, or the “corresponding PDU” is another “PDU” being received subsequently after the reception of the “PDU” (previously recited on line 2). If it does, the limitations “a corresponding PDU” on lines 10-11, “the corresponding PDU” on lines 10 and 11 are suggested to be changed to --the PDU--, or otherwise if it does not, the limitations “receiving a corresponding PDU” on lines 10-11 is suggested to be changed to “receiving another PDU subsequently after the reception of the PDU” and “the corresponding PDU” on lines 10 and 11 are suggested to be changed to --the other PDU--.

-Claim 1 omits structural/functional cooperative relationships of element “receiver window” (recited on line 6) with element “reordering buffer” (recited on line 4). Such omission makes the claim unclear how operation(s) or result(s) of the operation(s) of one of the elements “receiver window” and the “reordering buffer” affect operation(s) or result(s) of the operation(s) of the other for making the claimed method as a complete cooperative method.

-Claim 1 includes step of receiving a “corresponding PDU” (recited on line 4) for a first case “when a sum of a TSN of the PDU at an upper edge of the receiver window and a value of the set receiver widow size is *larger* than a value of a total TSN size”, as recited on lines 7-12. But the claim omits step(s) or procedures of the claimed method for a second case when a sum of a TSN of the PDU at an upper edge of the receiver window and a value of the set receiver widow size is *smaller* than a value of a total TSN size. Such omission makes the claim unclear how the “corresponding PDU” (recited on line 4) is received if the second case is occurred.

-Claim 1 recites the limitation “store the received PDU in a reordering buffer” on line 4; and claim 3 recites the limitation “storing a PDU with a TSN previous to TSNs of the receiver window in the reordering buffer” on lines 20-21. It is unclear whether “the received PDU”, recited on line 4 of claim 1, is stored in the “reordering buffer” prior or after the “PDU with a TSN previous to TSNs of the receiver window”, recited on lines 20-21 of claim 3, is stored in the “reordering buffer”.

Claims, if any depended on above claims, are therefore also rejected.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Vayanos et al (6,901,063).

-Regarding to claims 1 and 2, see figures 4A, 4B and 6B, col. 6, line 62 to col. 7, line 62, col. 23, line 10 to col. 24, line 19, Vayanos et al discloses a method for processing PDUs (Protocol Data Units) in a receiver (UE) (see figure 4B), which can receive a PDU to which a TSN (Transmission Sequence Number) is allocated from a transmitter (UTRAN) (see figure 4A) provided in an HSDPA (High-Speed Downlink Packet Access) communication system and store the received PDU in a reordering buffer (Re-ordering buffer) (see figure 4B), said method comprising:

procedure (inherently included) of setting a size of a receiver window (window) associated with the received PDU (see figure 6B); and

receiving a corresponding PDU with a TSN (e.g., one of 0,..., 2) (being received as shown in figure 6B) no matter when sum of a TSN (10 or 11) of the PDU at an upper edge of the receiver window and a value of the set receiver window size is larger or smaller than a value of a total TSN size where the TSN of the PDU from the transmitter is outside the receiver window, wherein a TSN of the corresponding PDU (e.g., TSN=0 or 2) can be within a predetermined range (0, 2) even though the TSN of the corresponding PDU is smaller than the TSN (=10 or 11) at the upper edge of the receiver window wherein the predetermined range is designated to be adjacent to the receiver window.

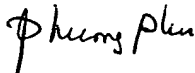
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:00 AM - 4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Phuong Phu  
02/12/07

**PHUONG PHU**  
**PRIMARY EXAMINER**

Phuong Phu  
Primary Examiner  
Art Unit 2611